

Title (en)

Uplink channel allocation for a mobile cellular network

Title (de)

Kanalzuteilung der Aufwärtsverbindung für ein mobiles zelluläres Netzwerk

Title (fr)

Affectation de canaux montants pour un réseau mobile cellulaire

Publication

**EP 0929202 A1 19990714 (EN)**

Application

**EP 98309983 A 19981204**

Priority

- EP 98309983 A 19981204
- EP 98300051 A 19980106

Abstract (en)

A mobile cellular telecommunication network is disclosed having a plurality of cells between which are defined reuse regions each served by a plurality of directional antennas each at respective base stations located around the reuse region boundary. Means are provided for allocating all uplink channels at all antennas in all reuse regions. Further means are provided for determining boundaries of microcells within the reuse regions, a plurality, equal to or greater than the plurality of antennas, of microcells being served by each antenna in the reuse region. Further means is provided for allocating to each microcell a group of uplink channels in an orthogonal reuse pattern within the reuse region. Means for ascribing a position to mobile terminals within each reuse region is provided. Yet further means is provided for allocating uplink channels for use by a mobile terminal from the group allocated to the microcell which contains its ascribed position. Since all channels are reused at all antennas, all channels are reusable several times in all cells, greatly increasing the number of mobile terminals which may operate without reducing cell size or requiring additional base stations. <IMAGE>

IPC 1-7

**H04Q 7/36**

IPC 8 full level

**H04Q 7/36** (2006.01); **H04W 16/02** (2009.01); **H04W 16/12** (2009.01); **H04W 16/06** (2009.01); **H04W 16/24** (2009.01); **H04W 16/32** (2009.01)

CPC (source: EP)

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Citation (search report)

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